



THE OHIO STATE UNIVERSITY

COLLEGE OF PUBLIC HEALTH



PUBHEHS 6390 – Major Human Diseases in Global Public Health

3 credit hours – AU 2025

Class Time and Location: 100% asynchronous distance learning experience. There is no designated physical room or specific time for course activities.

Meet Your Professor – Course Director and Primary Instructor

Thomas J. Knobloch, M.S., Ph.D.

Associate Professor of Practice; College of Public Health, Division of Environmental Health Sciences,

<https://cph.osu.edu/people/tknobloch>

Cunz Hall Office 434; Tel: 614-292-4168

Email: knobloch.1@osu.edu

John Carroll University, B.S. (1987, Biology), M.S. (1990, Biological Systematics)

The Ohio State University, Ph.D. (1997, Molecular, Cellular, and Developmental Biology)

The National Cancer Institute, T32 Research Fellow (2001, Molecular Carcinogenesis).

Instructor's Office Hours. Office hours are available as 15-30 minute as-needed session to meet in-person in Cunz Hall or via CarmenCanvas Zoom. If students have general questions or comments regarding the course, please first communicate directly via CarmenCanvas email or OSU email to the Course Director. Online virtual office hours are available on-demand or at a consensus fixed time based on survey feedback from the students.

Faculty Feedback and Response Time Guidelines. The following gives you an idea of my intended availability during the course:

- **Grading.** You can generally expect some feedback within 7 days Monday–Friday for regular in-session days. Many CarmenCanvas assessments provided immediate feedback and scoring.
- **Email.** I will reply to e-mails (sent via Carmen) within 24–48 hours Monday–Friday for regular in-session days. Monitoring and response to emails received during off-duty times will be as possible.
- **Discussion Board.** The Instructor will check contributions to the discussion boards daily Monday–Friday for regular in-session days. Course announcements will be used to remind students of pending contribution deadlines and posting requirements if deficient. Because Discussion Board activities are available for several weeks, gradings does not occur until after the posting deadline is complete.

Course Description and Contents

Medicine is believed to primarily help diagnose, treat and cure individual patients after they have become ill or injured or to help manage already- existing chronic conditions. Public health, however, is focused on preventing illnesses and injuries or intervening to decrease the impact to populations of people. A clinician usually lacks public health-related knowledge while a public health professional usually lacks sufficient understanding of disease pathogenesis and evaluation.

This course will integrate medical and public health contents and concepts relative to major human diseases and its public health impact from a global perspective. The course will emphasize basic physiology, pathophysiology and clinical evaluation of major human diseases that have significant global impact epidemiologically, politically, and economically with the focuses on disease causes and prevention. All the diseases discussed either have a history of global pandemic, or have the potential to become globally pandemic. It is especially helpful to the students for their research and work in human diseases and its model design with an emphasis on addressing problems that are global or pandemic.

Prerequisites: For students matriculated in graduate and professional degree programs, including admitted non-degree students.

Course Learning Objectives

Upon completion of this course, students will be better prepared to:

1. Recognize the current major human diseases with global public health impact.
2. Outline the mechanisms of human disease initiation and manifestation.
3. Summarize the basic principles and concepts about disease etiology, epidemiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention and control.
4. Summarize population-based data on the most common health problems faced by people living in poverty or under specific scenarios.
5. Discuss and debate major factors on human disease initiation, development, and early detection.
6. Summarize possible actions and further research about major human diseases and public health policy impact.

Foundational Public Health Knowledge Objectives

Profession and Science of Public Health

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge

Factors Related to Human Health

7. Explain effects of environmental factors on a population's health
8. Explain biological and genetic factors that affect a population's health
9. Explain behavioral and psychological factors that affect a population's health
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities

11. Explain how globalization affects global burdens of disease
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health)

Master of Public Health Degree [MPH]

Foundational Public Health Competencies

Evidence-based Approaches to Public Health

1. Apply epidemiological methods to the breadth of settings and situations in public health practice
2. Select quantitative and qualitative data collection methods appropriate for a given public health context
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate

4. Interpret results of data analysis for public health research, policy or practice

Public Health & Health Care Systems

5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels

Planning & Management to Promote Health

7. Assess population needs, assets and capacities that affect communities' health
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs
9. Design a population-based policy, program, project or intervention
10. Explain basic principles and tools of budget and resource management
11. Select methods to evaluate public health programs

Policy in Public Health:

12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations
15. Evaluate policies for their impact on public health and health equity

Leadership

16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making
17. Apply negotiation and mediation skills to address organizational or community challenges

Communication

18. Select communication strategies for different audiences and sectors
19. Communicate audience-appropriate public health content, both in writing and through oral presentation
20. Describe the importance of cultural competence in communicating public health content

Interprofessional and/or intersectoral practice

21. Integrate perspectives from other sectors and/or professions to promote and advance population health

Systems Thinking

22. Apply systems thinking tools to visually represent a public health issue in a format other than standard narrative

Master of Public Health Specialization Competencies

Environmental Health Sciences

1. Outline the health challenges that natural and anthropogenic contaminants in the environment can pose to population health

2. Explain the physiological factors that influence human exposure and the uptake of chemical and biological environmental agents
3. Describe federal and state regulatory programs, guidelines and authorities relevant to environmental and occupational health
4. Access state, federal, and local resources for assessing environmental and occupational health
5. Determine the role of exposure assessment in environmental and occupational health

Master of Science Specialization Competencies

Environmental Public Health

1. Synthesize literature in student's area of specialization relative to their thesis topic and its importance for public health
2. Summarize relevant theories and conceptual models that inform their research
3. Conduct a research project using appropriate research methods and ethical approaches
4. Prepare a thesis summarizing the research project and interpreting the results
5. Communicate in writing and orally a research project's methods, results, limitations, conclusions and public health relevance
- 6. Explain individual and community susceptibility and vulnerability factors that heighten the risk for adverse health outcomes from environmental hazards**
7. Apply the environmental health paradigm (i.e., EHS Model) to characterizing hazardous physical, chemical and biological agents relative to sources, categories, exposure matrices/pathways, distribution, human exposures, responses, societal/regulatory actions and technological controls
8. Work with various stakeholders and other professions to proactively and reactively address environmental and occupational regulatory, policy and human health issues and concerns

Doctor of Philosophy Degree Specialization Competencies

Environmental Public Health

1. Explain how the core public health concepts of biostatistics, epidemiology, environmental health, health behavior/health promotion, and health administration relate to the student's area of specialization
- 2. Synthesize and critique existing literature in student's area of specialization to identify gaps in the evidence base and justify their importance for public health**
3. Apply relevant theories and conceptual models to inform and ground research design and interpretation
4. Formulate hypotheses, plan and conduct a research study using appropriate research methods and ethical approaches
5. Analyze data and prepare an original manuscript, suitable for publication, summarizing the results and interpreting the findings from a research study
6. Communicate in writing and orally a research study's purpose, methods, results, limitations, conclusions and public health relevance to both informed and lay audiences
7. Quantify individual and community susceptibility and vulnerability factors that heighten the risk for populations for adverse health outcomes from environmental hazards
8. Apply the environmental health paradigm (i.e., EHS Model) to characterizing hazardous physical, chemical and biological agents relative to sources, categories, exposure matrices/pathways, distribution, human exposures, responses, societal/regulatory actions and technological controls

9. Work with various stakeholders and other professions to proactively and reactively address environmental and occupational regulatory, policy and human health issues and concerns

A complete list of College of Public Health Competencies is located in Appendix C of the CPH Graduate Student Handbook that can be found at <https://cph.osu.edu/students/graduate/handbooks/> or <https://cph.osu.edu/students/competencies>

Textbook and Reading References: This course does not require the purchase of a specific textbook. Assigned primary readings will come from *Harrison's Principles of Internal Medicine* which is free to access and available online. Supplemental readings, such as journal articles, digital video clips, and applicable website contents/links, are required components in most of the Modules. *Harrison's Principles of Internal Medicine* is our primary reference for all modules as indicated to facilitate the understanding of the lecture notes and will be available via CarmenCanvas. This is an exceptional, easy to read, primary resource for all course content (and even topics we do not cover within the scope of this course offering).

Harrison's Principles of Internal Medicine. New York: McGraw-Hill Medical, if you are off campus, you may have to authenticate with BuckeyePass DUO.

<https://accessmedicine.mhmedical.com/Book.aspx?bookid=3095>

CarmenCanvas. There is a Carmen site for this course: <https://carmen.osu.edu>. All course materials are available via Carmen.

You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions (<https://admin.resources.osu.edu/buckeyepass/adding-a-device>)
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click Enter a Passcode and then click the Text me new codes button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application (<https://admin.resources.osu.edu/buckeyepass/installing-the-duo-mobile-application>) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

Class Format: How This Course Works

Mode of Delivery. This course is a 100% online distance learning (DL) experience from the Division of Environmental Health Sciences in the College of Public Health. There are no required sessions when you must be logged in to CarmenCanvas at a scheduled time. The course is hosted on OSU's CarmenCanvas learning management system (<https://carmen.osu.edu/>).

Pace of Online Activities. In CarmenCanvas there are four foundational “Modules” that present 21 distinct “Chapters” of asynchronously delivered course content. Within each Module, there is a series of daily, weekly, and extended time activities. You can access the contents in each Module from its opening date until its closing date. Dates are listed in the Syllabus as well as online within CarmenCanvas. This structure allows you to read materials, watch the lectures, and complete discussion board postings and lecture self-checks at your own pace. These can be completed at your own cadence, but must be done by the time the Module closes. No exceptions*. In addition to the equivalent instruction time per module, there are also corresponding supplemental readings and other materials for review and self-study. Much of the content for the course will include short case scenarios for students to complete and self-assess. *There are always exceptions.

Credit hours and work expectations: This is a 3 credit-hour course. This is a completely asynchronous online course (i.e., there are no scheduled or mandatory times at which we all gather in person or virtually). The asynchronous design allows for more flexibility, but it also puts more responsibility on the student to effectively manage time and learning pace. Therefore, please plan well and always try to get course activity and assignment done well ahead of due times to avoid something may occur unexpectedly in the last minute. **It is easy for time to slip away.** According to Ohio State bylaws on instruction (go.osu.edu/credithours), students should expect around **3 hours** per week of time spent on direct instruction (for example, instructor content videos, external online activities, CarmenCanvas activities) in addition to **6 hours** of homework/active learning activities (for example, reading and preparation of “Current Topic Report in Brief” submissions, Discussion Board postings). That is potentially **9 hours of activities time each week**. It is expected that students in PUBHEHS 6390 will log in multiple times per week to CarmenCanvas, even if much of the work can be done “off-line.”

Attendance and participation requirements: Because this is an online course, your attendance is based on your online activity and participation record. The following is a summary of students’ expected participation for PUBHEHS 6390:

1. Participating in online activities for attendance: The **minimum** acceptable frequency is at least 2× per week. Minimum participation will be scored as “Average” or “meets the standard” for participation. Scoring for “Good” and “Excellent” participation require increased effort as indicated in the Discussion Board Grading Rubric.
2. You are expected to log in to the course in CarmenCanvas every week, and during most weeks you will probably log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me as soon as possible.
3. Office hours and live sessions: OPTIONAL, but both virtual and in-person times will be available as necessary.
4. All live, scheduled events for the course, including my office hours, are optional. Your decision to participate or not in such activities will not impact your participation evaluation.
5. Participating in discussions: The **minimum** acceptable participation is at least 2× per week.
6. As part of your participation, each week you are required at a **minimum** to post your original comments in response to the topic prompt and at a **minimum** substantively respond to at least one of your classmates’ posts. *These are minimum acceptable posting participation standards. Minimum participation will be scored as “Average” participation. Scoring for “Good” and “Excellent” participation require increased effort as indicated in the Discussion Board Grading Rubric.*

Course Activities and Assignments

1. **Chapter Self-Check Assessments.** For each learning experience topic in this course, you will be required to view pre-recorded video content such as a lecture overview and/or resource use, review a Chapter-specific comprehensive slide deck, complete readings in the online textbook, and review representative additional resources (e.g., scientific papers, online content, government websites, professional organization content). To assess your level of understanding of the Chapter topics and contents, you will be required to complete periodic Self-Check Assessments using the CarmenCanvas platform. Self-Check Assessments are primarily multiple choice style and brief response CarmenCanvas quizzes.

2. **Question/Discussion Participation.** This class will use Discussion Boards [DBs] to foster critical thinking skills and encourage online community development. You must respond to the prompt questions posted by the Instructor in the Discussion Board. Expectations and posting requirements can be found in the Table of Grading Structure and Discussion Board Rubric. A guide for creating quality discussion posts can be found in CarmenCanvas. You are encouraged to post early, but it is understood that this may not always be possible. ***In addition to posting your response to the Discussion Board prompt question [1 DB contact], you are required at a minimum to respond substantively to at least two of your classmates' posts [2 DB contacts]. You are required to post your original prompt response first before you will be able to view the posts of others.***

Everyone is expected to follow the discussion throughout the relevant Chapter and Module session. It is understood that your level of participation may vary, but remember that the minimum acceptable level of participation does not represent "Good" or "Exceptional" standards, but rather "Average" standards (see Discussion Board Rubric). It is recommended that you respond to a several different postings from a few different classmates.

3. **Current Topic Research Proposals in Brief** (1-page each), which will be part of each Module requirement and must be submitted by the ending date of that Module. The "Research Proposal in Brief" is a much-simplified tool to address the same goal as the prior comprehensive Research Proposal activity: To promote innovative thinking and encourage impactful research in global public health by practicing "real world" proposal drafting and discussion. Detailed instruction and rubric for the Research Proposal in Brief can be found in CarmenCanvas. Each Research Proposal in Brief accounts for 6.25% of your total course grade [$4 \times 6.25\% = 25\%$ of final point score]. Think of these as data-supported professional opinion writing exercises on current emerging public health problems.

4. **Required Weekly Check-Ins.** While there you have flexibility with how you progress through a module, University rules require students to participate in an online activity at least 1x per week. To meet this requirement, you will be posting in Weekly Check-Ins. Due dates are listed in each learning Module. Check-Ins are required to mark the Module complete, but do not count towards your final course grade.

Our self-assessment activities and other assignments are open-book and open-notes unless noted in the Syllabus or in the CarmenCanvas assignment instructions. You may use written materials such as your personal notes or documentation, the online course textbook, slide handouts, and all Module resource materials within CarmenCanvas. Do not use online search tools (no Google, Bing, Yahoo, DuckDuckGo, BraveSearch, ChatGPT, Gemini, Copilot, ...) to look for answers. Remember, the course assessment questions are derived from course-delivered content and not just any website you may encounter online. Also, nearly every search engine has embedded generative AI and LLM tools, so use is a violation of the Course Syllabus and your academic integrity assurances. In this course, there is substantial emphasis on YOUR lived experiences, expertise, and informed opinion. **There is no need for GenAI and trust in yourself.**

The summary Tables and Figures from ***Harrison's Principles of Internal Medicine*** are rich sources of learning testing content. Make-up assignments are not offered without justification [such as SLDS accommodation], since the multi-week format of the course modules already provides extensive flexibility to complete assignments. If there are exigent circumstances, you must communicate with the instructor before the event or as soon as possible afterwards. You may be asked to provide supporting “evidence” that you were unable to participate during the date of your missed activity (the specifics of a medical appointment should not be shared, unless the student chooses to do so). Generally speaking, no make-ups will be granted. Exceptions may be made at the Course Director’s discretion. *The most important factor will be timely and informative (as appropriate or needed) communication with the Course Director.* These consequences are not intended as punitive, but rather to encourage responsibility and accountability.

Communication matters.

Other additional *ad hoc* assignments may also be announced to reflect current important topics in global public health. Some additional assignments may be offered as “extra credit” points that add to your total earned points tally.

Policies for this 100% Asynchronous, Online, Distance Learning Course

To receive credit for the course, participants are encouraged to complete as much as possible of the course activities with satisfactory responses. ***In order to provide students with flexibility to work through content and complete assignments, the course is organized by monthly modules with weekly activities and assignments. By doing so, students can complete assignments as their schedule allows. Because you have the flexibility to work as your schedule allows, it is unlikely that make-ups or extensions will be granted for missed activity.*** Quality work is expected from all students. Assignments/activities are to be completed and submitted by the due dates as posted in CarmenCanvas. All assignment/activity due dates are also visible in the Syllabus section of your CarmenCanvas course. Some activities (such as Self-Check Assessments) will be auto-graded and some activities (such as Discussion Board participation, and Current Topics Research Proposals in Brief) will be graded periodically and scores updated with the ending of each Module.

Assessments [CarmenCanvas Quizzes]: You may use course materials as provided via CarmenCanvas; however, you must complete all assessments by yourself, in your own original words, without any external assistance or communication. All answers and content you provide must be uniquely yours and not provided in cooperation with any other party [person, online tool]. When in doubt of content use or if resources are appropriate or not, please consult the Syllabus and contact the Course Director, Dr. Knobloch.

Assignments: Your assignments, including Discussion Board posts and replies, must be your own original work as provided for the first time in This current course session. Cite any sources (including class resources, publications, websites) you use for your written assignments and Discussion Board posts. Do not use other participant’s content or use prior years’ commentaries and present it as your own original work. These are opportunities to showcase your unique perspectives and learning/life experiences. Remember to keep Discussion Board posts informative and substantive. While “Me too!” and “Great point” are certainly encouraging, they do not make the threshold for substantive. Share the rest of story you think improves the conversation.

Course Technology.

Technology Support. For help with your password, university email, Carmen Canvas, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- Self-Service and Chat support: <https://it.osu.edu/students>
- Phone: 614-688-4357(HELP)
- Email: servicedesk@osu.edu
- TDD: 614-688-8743

Technology skills needed for this course

1. Basic computer and web-browsing skills
2. Navigating CarmenCanvas (go.osu.edu/canvasstudent)
3. CarmenCanvas Zoom virtual meetings (go.osu.edu/zoom-meetings)
4. Recording a slide presentation with audio narration (go.osu.edu/video-assignment-guide)
5. Recording, editing, and uploading video ([go.osu.edu/video-assignment guide](https://go.osu.edu/video-assignment-guide))

Equipment required for this course

Computer: current Mac (MacOS) or PC (Windows 10+) with high-speed internet connection

6. Webcam: built-in or external webcam, fully installed and tested
7. Microphone: built-in laptop or tablet mic or external microphone
8. Mobile device (smartphone or tablet) to use for BuckeyePass (DUO) authentication.
9. Microsoft 365 Copilot: All Ohio State students are now eligible for free Microsoft 365 Copilot. Full instructions for downloading and installation can be found at go.osu.edu/office365help.

Grading Policy. In order to receive credit for the course, participants are encouraged to complete as much as possible of the course activities with satisfactory responses. In order to provide students with flexibility to work through content and complete assignments, the course is organized into modules that last a few to several weeks (quasi-monthly). By giving students multiple weeks to accomplish the required course assignments, students can complete coursework as their schedule allows. Because you have the flexibility to work as your personalized cadence dictates, the individual responsibility of submitting required items on time is more emphasized, and no make-ups or extensions will be granted for missed activities.

Quality independent and unique work is expected from all students. Assignments/activities are to be completed and submitted by the due dates as posted in CarmenCanvas. All assignment/activity due dates are also visible in the Syllabus section of your CarmenCanvas course. Some activities (such as Self-Check Assessments) will be auto-graded and some activities (such as Discussion Board Participation, Research Proposals in Brief) may be graded periodically at intervals that align with the end of learning Modules.

Assignments/Assessments – Course Grading Structure

Activity	% Overall Grade	Note
Academic integrity and generative artificial intelligence use competency	05	Must be completed within the first week of the semester. You will not be granted access to the remaining course content until you complete this task.
Individual Self-Check Assessments of content competency	45	CarmenCanvas Quiz Assessment. Approximately 20×2.25 points each.
Discussion Board Participation	25	Substantive commentary based on Discussion Prompt; Respond to comments from classmates/instructor; provide novel insight into current topic; see Discussion Board Rubric. 20×1.25 points each.
Current Topic Research Proposals in Brief	25	Carmen Online Submission; Current or emerging public health concern; What needs to be done?; 4×6.25 points each; see Current Resources and Research Proposal in Brief Rubric.
Total	100	

Grade scale. Grading is done periodically and your final grade will be determined via CarmenCanvas based on the overall performance and activity participation.

University Registrar / Policies & Information / [A Buckeye's Guide to Academic Policies](#)

A	94 to 100	Met the learning objectives of the course in an excellent manner.
A-	90 to <94	Met the learning objectives of the course in an excellent manner.
B+	87 to <90	Met the learning objectives of the course in an above-average manner.
B	83 to <87	Met the learning objectives of the course in an above-average manner.
B-	80 to <83	Met the learning objectives of the course in an above-average manner.
C+	77 to <80	Met the learning objectives of the course in an average manner.
C	73 to <77	Met the learning objectives of the course in an average manner.
C-	70 to <73	Met the learning objectives of the course in an average manner.
D+	67 to <70	Met the learning objectives of the course in a low but acceptable manner.
D	60 to <67	Met the learning objectives of the course in a low but acceptable manner.
E	<60	The student failed to meet the learning objectives of the course.

Attendance: Your weekly attendance is required and is measured by proxy using your CarmenCanvas online activity and participation activities. Student access to posted course Modules and contents will be tracked to ensure there is ongoing access, activity, and productivity.

Time Management: University rules stipulate that a student can expect to spend a minimum of 1-hr per credit hour (3 hours for this course) per week for direct content interactions with an additional minimum of 2× the credit hours (6 hours) for additional participation, assignments, and assessments. **Thus, for this 3-credit hour course you should expect to devote a minimum of 9 hours per week.** Workload will vary from week to week, with some weeks having more tasks, assignments, and assessments and others having more active learning time.

This is intended as a rough guide to help you plan your time accordingly. In a typical week, you can expect your time to be spent as following to achieve a “C” grade: 3 hours – viewing, reading, and exploring lecture content and supporting instructional resources. 6 hours – completing assigned reading and assignments, completing online knowledge Self-Check Assessments, reviewing lecture content (video, slide deck) and other resources, participating in Discussion Board commentary, preparing Research Proposal in Brief submissions.

[OSU Teaching & Learning Resource Center](#): “Credit Hours” is a measure of the amount of work required for a course. The Department of Education calls for a minimum of approximately one nominal hour (50 minutes) of class time and two hours for independent student work per week, per credit hour for a C average. More information regarding Ohio State's policies on credit hours can be found on the [Registrar's website](#). Instructors can also refer to the [Credit Hour Estimation](#) page to help determine the amount of time students might need to complete work in a particular course. (For example, a three-credit, 14-week course would, according to those policies, require three hours of structured learning time for students per week plus an average of six hours of homework and assignment preparation.)

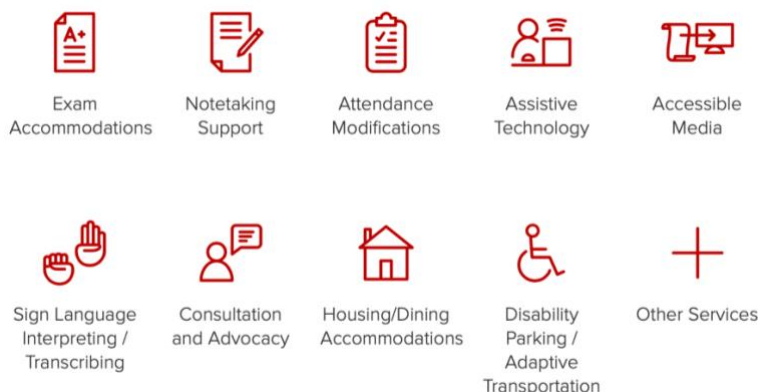
CarmenCanvas. The Chapter notes, additional reading materials, test materials, and other announcements will be available in the CarmenCanvas site for the course. You will also use CarmenCanvas for other course activities, such as participating in the Discussion Board, Self-Check Assessments, and submitting Current Research Topics in Brief reports. Should you require additional services to use these resources, please request accommodations with the Course Director. For Tech Support from the University, please call 614-688-4357(HELP) for assistance involving CarmenCanvas. Support is available at this number 24/7. Email servicedesk@osu.edu and self- service chat <https://it.osu.edu/students>.

Office of Student Life: Disability Services. The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability

(including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable academic accommodations, you must register with Student Life Disability Services available at [1]

<http://slds.osu.edu/>, [2] 614-292-3307, [3] slds@osu.edu and [4] Room 098 Baker Hall 113 W. 12th Avenue. After registration,

make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion to facilitate your learning experience.



Mental Health Services: As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling [614-292-5766](tel:6142925766). CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at [614-292-5766](tel:6142925766) and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

Religious Beliefs or Practices Accommodations. Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy. If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the [Civil Rights Compliance Office](#). (Policy: [Religious Holidays, Holy Days and Observances](#))

Academic Integrity:

Copyright Statement. *This syllabus and all course materials (e.g., homework assignments, solution keys, course materials) are under copyright by the instructor and cannot be posted elsewhere without written permission.*

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University, the College of Public Health, and the Committee on Academic Misconduct (COAM) expect that all students have read and understood the University's *Code of Student Conduct* and the School's *Student Handbook*, and that all students will complete all academic and scholarly assignments with fairness and honesty. <https://oaa.osu.edu/academic-integrity-and-misconduct>

The *Code of Student Conduct* and other information on academic integrity and academic misconduct can be found at the COAM website. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct*, the *Student Handbook*, and in the syllabi for their courses may constitute "Academic Misconduct."
<https://trustees.osu.edu/bylaws-and-rules/code>

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process."

CHAPTER 3335-23 CODE OF STUDENT CONDUCT – 3335-23-01 Introduction and purpose.

https://trustees.osu.edu/sites/default/files/documents/2019/08/CodeStudentConduct_0.pdf

The code of student conduct, a part of the Ohio Administrative Code, is established to foster and protect the core missions of the university; to foster the scholarly and civic development of the university's students in a safe and secure learning environment, and to protect the people, properties and processes that support the university and its missions. The core missions of the university are research, teaching and learning, and service. Preservation of academic freedom and free and open exchange of ideas and opinions for all members of the university are central to these missions.

Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Please note that the use of material from the Internet without appropriate acknowledgement and complete citation is plagiarism just as it would be if the source were printed material. Further examples are found in the *Student Handbook*. Ignorance of the *Code of Student Conduct* and the *Student Handbook* is never considered an “excuse” for academic misconduct.

Instructor Statement:

If any course instructor suspects a student of academic misconduct in a course, I am obligated by University Rules to report these suspicions to COAM. If a student in the class informs a course instructor that academic misconduct may have occurred, I am obligated by University Rules to report these suspicions to COAM.

If COAM determines that the student has violated the University’s *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in the course and suspension or dismissal from the University. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

The OSU Committee on Academic Misconduct has provided the following [policy on the use of AI by students in academic courses](#): “All students have important obligations under the Code of Student Conduct to complete all academic and scholarly activities with fairness and honesty. Our professional students also have the responsibility to uphold the professional and ethical standards found in their respective academic honor codes. Specifically, students are not to use unauthorized assistance in the laboratory, on field work, in scholarship or on a course assignment unless such assistance has been authorized specifically by the course instructor. In addition, students are not to submit their work without acknowledging any word-for-word use and/or paraphrasing of writing, ideas or other work that is not your own. These requirements apply to all students — undergraduate, graduate, and professional.”

“To maintain a culture of integrity and respect, these generative AI tools should not be used in the completion of course assignments unless an instructor for a given course specifically authorizes their use. Some instructors may approve of using generative AI tools in the academic setting for specific goals. However, these tools should be used only with the explicit and clear permission of each individual instructor, and then only in the ways allowed by the instructor.”

In this course, PUBHEHS 6390, there are no instances of approved generative AI (GenAI) use. Keep in mind that common resources such as Grammarly (“Responsible AI that ensures your writing and reputation shine”) and language translators such as DeepL (“AI-powered edits”) have GenAI embedded within them and cannot be used in the process of completing your assignments for this course]. As the University moves forward with their responsible use of GenAI and GenAI fluency initiatives, these guidelines may change. <https://news.osu.edu/ohio-state-launches-bold-ai-fluency-initiative-to-redefine-learning-and-innovation/>

“If you are not sure if a tool you wish to use is permitted for our course or you wish to use a tool for specific purpose you think does not violate the principles articulated here, please contact me to discuss it first.”

“Because you will best accomplish the goals of this course by undertaking all activities and assessments without AI assistance, you are not permitted to use any AI tools in this course. If you are uncertain about any part of this policy or its application to any assignment or activity in the course, consult with me before proceeding.”

Health and safety expectations. Health and safety requirements: All students, faculty, and staff are required to comply with and stay up-to-date all University safety and health guidance found online at Safe and Healthy Buckeyes (<https://safeandhealthy.osu.edu>). The STRATUS COVID variant is out in about right now, so take measures as you see necessary for your health safety. <https://www.msn.com/en-us/health/other/xfg-stratus-covid-variant-now-dominant-in-us-as-cases-surge-know-these-symptoms/ar-AA1Ktxcb?ocid=BingNewsSerp>

Grievances and Solving Problems. A student who encounters a problem related to his/her educational program has a variety of avenues available to seek resolution. According to University Policies, if you have a problem with this class, you should seek to resolve the grievance concerning a grade or academic practice by speaking first with the instructor or professor. Then, if necessary, you may take your case to the department chairperson. Specific procedures are outlined in [Faculty Rule 3335-8-23](#), the [CPH Graduate Student Handbook](#), and the [CPH Undergraduate Student Handbook](#). Grievances against graduate, research, and teaching assistants should be submitted first to the supervising instructor, then to the chairperson of the assistant's department.

Course Schedule

MODULE 1. AUGUST 26, TUESDAY – SEPTEMBER 22, MONDAY TIMED CONTENT AVAILABILITY AND PARTICIPATION ENDS AT DEADLINE

NOTE: NO UNIVERSITY CLASSES ON SEPTEMBER 01, 2025 FOR LABOR DAY BREAK

Module Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content, Research Proposal in Brief submission, Weekly Check-Ins.

• Chapter 01. Introduction to Global Issues and Global Health in Medicine.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce some fundamental relationship between global issues, global health and medicine.

Publications and Resources.

1. Hemenway D. [Why we don't spend enough on public health](#). N Engl J Med. 2010 May 6;362(18):1657-8. doi: 10.1056/NEJMp1001784. PMID: 20445178.
2. Navarro V. [Why we don't spend enough on public health: an alternative view](#). Int J Health Serv. 2011;41(1):117-20. doi: 10.2190/HS.41.1.h. PMID: 21319724.
3. Harrison's Principles of Internal Medicine. [Part 17. Global Medicine](#). <https://accessmedicine.mhmedical.com/book.aspx?bookID=3095#262859217>

•• Chapter 02. Basics in Human Health/Diseases.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce some basic definitions and knowledge in human health and disease.

Publications and Resources.

1. Harrison's Principles of Internal Medicine. [Part 2. Cardinal Manifestations and Presentation of Diseases](#).
2. Sim I. [Mobile Devices and Health](#). N Engl J Med. 2019 Sep 5;381(10):956-968. doi: 10.1056/NEJMr1806949. PMID: 31483966.
3. Ku JP, Sim I. [Mobile Health: making the leap to research and clinics](#). NPJ Digit Med. 2021 May 14;4(1):83. doi: 10.1038/s41746-021-00454-z. PMID: 33990671; PMCID: PMC8121913.

●●● Chapter 03. Environmental Exposures and Diseases.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content, Weekly Check-Ins.

This session will summarize developing concepts of environmental medicine, a multidisciplinary field involving medicine, environmental science, chemistry and other disciplines.

Publications and Resources.

1. Harrison's Principles of Internal Medicine. [Part 15. Disorders Associated with Environmental Exposures.](#)
2. [Fuster and Hurst's The Heart, 14e. Chapter 110. Environment and Heart Disease.](#)
3. [Fuster and Hurst's The Heart, 15e. Chapter 81. Race, Ethnicity, Disparities, Diversity, and Heart Disease.](#)
4. Auerbach PS. [Physicians and the environment.](#) JAMA. 2008 Feb 27;299(8):956-8. doi: 10.1001/jama.299.8.956. PMID: 18314440.

●●●● Chapter 04. Occupational and Environmental Lung Disease.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will highlight major inhalational/occupational exposures and respiratory disorders.

Publications and Resources.

1. Pope CA 3rd, Ezzati M, Dockery DW. [Fine-particulate air pollution and life expectancy in the United States.](#) N Engl J Med. 2009 Jan 22;360(4):376-86. doi: 10.1056/NEJMsa0805646. PMID: 19164188; PMCID: PMC3382057.
2. Bush RK, Peden DB. [Advances in environmental and occupational disorders in 2008.](#) J Allergy Clin Immunol. 2009 Mar;123(3):575-8. doi: 10.1016/j.jaci.2009.01.062. PMID: 19281905.
3. Harrison's Principles of Internal Medicine. Chapter 289. [Occupational and Environmental Lung Disease.](#) <https://accessmedicine.mhmedical.com/content.aspx?sectionid=265456121&bookid=3095&Resultclick=2>

●●●●● Chapter 05. Major Global Infectious Diseases. Common Respiratory Infections, STDs and AIDS.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce basic considerations in infectious diseases, and summarize common respiratory infections and human immunodeficiency virus disease, such as common cold, influenza, pneumonia, STD and AIDS, and their broad impact internationally.

Publications and Resources.

1. R Rennie, B Crowson. The management of upper respiratory tract infections. J R Nav Med Serv. 2013;99: 97-105.
2. Harrison's Principles of Internal Medicine. [Chapter 199. Common Viral Respiratory Infections.](#)
3. Harrison's Principles of Internal Medicine. [Chapter 199. Influenza.](#)

4. Harrison's Principles of Internal Medicine. [Chapter 202. Human Immunodeficiency Virus Disease. AIDS and Related Disorders](#).
5. Malani PN. [Visions for an AIDS-Free Generation: Red Ribbons of Hope](#). JAMA. 2016 Jul 12;316(2):154-5. doi: 10.1001/jama.2016.9436. PMID: 27404183.

••••• • **Chapter 06. Major Global Infectious Diseases. Tuberculosis.**

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce tuberculosis with its etiology, epidemiology, pathology and immunity, clinical manifestations, diagnosis, treatment, prevention and control, and its global impact.

Publications and Resources.

1. Curley CA. [Rule out pulmonary tuberculosis: clinical and radiographic clues for the internist](#). Cleve Clin J Med. 2015 Jan;82(1):32-8. doi: 10.3949/ccjm.82a.14014. Erratum in: Cleve Clin J Med. 2015 Feb;82(2):114. PMID: 25552625.
2. Curley CA. [Correction: Rule out pulmonary tuberculosis: clinical and radiographic clues for the internist](#). Cleve Clin J Med. 2015 Feb;82(2):114. Erratum for: Cleve Clin J Med. 2015 Jan;82(1):32-8. PMID: 25897601.
3. Harrison's Principles of Internal Medicine. [Chapter 178: Tuberculosis](#).
<https://accessmedicine.mhmedical.com/content.aspx?sectionid=265423319&bookid=3095&Resultclick=2>

MODULE 02: SEPTEMBER 23, TUESDAY – OCTOBER 20, MONDAY

TIMED CONTENT AVAILABILITY AND PARTICIPATION ENDS AT DEADLINE

NOTE: NO UNIVERSITY CLASSES ON OCTOBER 16 – OCTOBER 17, 2025 FOR AUTUMN BREAK

Module Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content, Research Proposal in Brief submission, Weekly Check-Ins.

••••• •• Chapter 07. Major Global Infectious Diseases. Malaria.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will summarize malaria with its etiology, pathogenesis, epidemiology, host response, clinical features, chronic complications, diagnosis, treatment, and prevention, and its global health and other impacts.

Publications and Resources.

1. Lesho EP, George S, Wortmann G. [Fever in a returned traveler](#). Cleve Clin J Med. 2005 Oct;72(10):921-7. doi: 10.3949/ccjm.72.10.921. PMID: 16231689.
2. Marks M, Johnston V, Brown M. [Fever in the Returned Traveler. Hunter's Tropical Medicine and Emerging Infectious Diseases](#). 2020:1077–86. PMCID: PMC7152027.
3. Huits R, Hamer DH, and Libman M. [Post-Travel Evaluation of the Ill Traveler](#). CDC Yellow Book 2026.
4. Harrison's Principles of Internal Medicine. [Chapter 224. Malaria](#).

••••• •• Chapter 08. Major Global Diseases. Malnutrition and Diarrhea.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce basic consideration in nutrition and associated diseases in malnutrition. It will also summarize common types of diarrheas with its etiology, pathogenesis, epidemiology, clinical features, chronic complications, diagnosis, treatment, and prevention, and its global health and other impacts.

Publications and Resources.

1. Walker CLF, Rudan I, Liu L, Nair H, Theodoratou E, Bhutta ZA, O'Brien KL, Campbell H, Black RE. [Global burden of childhood pneumonia and diarrhoea](#). Lancet. 2013 Apr 20;381(9875):1405-1416. doi: 10.1016/S0140-6736(13)60222-6. Epub 2013 Apr 12. PMID: 23582727; PMCID: PMC7159282.
2. Harrison's Principles of Internal Medicine. [Chapter 133. Acute Infectious Diarrheal Diseases and Bacterial Food Poisoning](#).
3. Harrison's Principles of Internal Medicine. [Chapter 334. Malnutrition and Nutritional Assessment](#).

••••• •• Chapter 09. Major Global Non-Infectious Diseases. Major Respiratory Diseases 1.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce basic biology of respiratory system, and focus on some major respiratory diseases, such as asthma and chronic obstructive pulmonary disease (COPD).

References:

1. Fung V, Graetz I, Galbraith A, Hamity C, Huang J, Vollmer WM, Hsu J, Wu AC. [Financial barriers to care among low-income children with asthma: health care reform implications](#). JAMA Pediatr. 2014 Jul;168(7):649-56. doi: 10.1001/jamapediatrics.2014.79. PMID: 24840805; PMCID: PMC7105170.
2. Harrison's Principles of Internal Medicine. [Chapter 287. Asthma](#).
3. Harrison's Principles of Internal Medicine. [Chapter 286. Chronic Obstructive Pulmonary Disease](#).

• **Chapter 10. Major Global Non-Infectious Diseases. Major Respiratory Diseases 2.**

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will focus on some major respiratory diseases, such as cystic fibrosis and sleep apnea.

Publications and Resources.

1. Drazen JM. [Sleep Apnea Syndrome](#). N Engl J Med. 2002 Feb 7;346(6):390. doi: 10.1056/NEJM200202073460602. PMID: 11832526.
2. Platon AL, Stelea CG, Boișteanu O, Patrascanu E, Zetu IN, Roșu SN, Trifan V, Palade DO. [An Update on Obstructive Sleep Apnea Syndrome-A Literature Review](#). Medicina (Kaunas). 2023 Aug 13;59(8):1459. doi: 10.3390/medicina59081459. PMID: 37629749; PMCID: PMC10456880.
3. Harrison's Principles of Internal Medicine. [Chapter 291. Cystic Fibrosis and Sleep Apnea](#).
4. Harrison's Principles of Internal Medicine. [Chapter 297. Sleep Apnea](#).

• • **Chapter 11. Major Global Non-Infectious Diseases. Cardiovascular Diseases 1.**

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce basic biology of cardiovascular system, and focus on cardiovascular diseases, such as atherosclerosis and hypertension.

Publications and Resources.

1. Correia LCL. [Primary Prevention of Cardiovascular Disease with a Mediterranean Diet Supplemented with Extra-Virgin Olive Oil or Nuts](#). N Engl J Med. 2018 Oct 4;379(14):1387. doi: 10.1056/NEJMc1809971. PMID: 30285331.
2. Harrison's Principles of Internal Medicine. [Chapter 237. Basic Biology of the Cardiovascular System](#).
3. Harrison's Principles of Internal Medicine. [Chapter 238. Epidemiology of Cardiovascular Disease](#).
4. Harrison's Principles of Internal Medicine. [Chapter 273. Ischemic Heart Disease](#).
5. Harrison's Principles of Internal Medicine. [Chapter 277. Hypertensive Vascular Disease](#).

• • • **Chapter 12. Major Global Non-Infectious Diseases. Cardiovascular Diseases 2.**

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will focus on vascular disease in the brain, such as hemorrhages and stroke.

Publications and Resources.

1. Chen R, Wang C, Meng X, Chen H, Thach TQ, Wong CM, Kan H. [Both low and high temperature may increase the risk of stroke mortality](#). Neurology. 2013 Sep 17;81(12):1064-70. doi: 10.1212/WNL.0b013e3182a4a43c. Epub 2013 Aug 14. PMID: 23946311; PMCID: PMC3795588.
2. Harrison's Principles of Internal Medicine. [Chapter 426. Introduction to Cerebrovascular Diseases](#).
3. Harrison's Principles of Internal Medicine. [Chapter 427. Ischemic Stroke](#).
4. Harrison's Principles of Internal Medicine. [Chapter 428. Intracranial Hemorrhage](#).

MODULE 03: OCTOBER 21, TUESDAY – NOVEMBER 17, MONDAY
TIMED CONTENT AVAILABILITY AND PARTICIPATION ENDS AT DEADLINE

NOTE: NO UNIVERSITY CLASSES ON NOVEMBER 11, 2026 FOR VETERAN'S DAY BREAK

Module Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content, Research Proposal in Brief submission, Weekly Check-Ins.

• • • • **Chapter 13. Current Topics in Global Diseases and Public Health.**

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will address the continued presence of climate change on fundamental components of global public health disease risk and prevention, as well as examine the current re-emergence of the monkeypox virus [MPXV] and consequent Mpox disease as a global health concern.

Publications and Resources.

General and Historic Information. Mpox.

Harrison's Principles of Internal Medicine. [Chapter 196: Molluscum Contagiosum, Mpox, and Other Poxvirus Infections.](#)

1. Campbell-Lendrum D, Neville T, Schweizer C, Neira M. [Climate change and health: three grand challenges.](#) Nat Med. 2023 Jul;29(7):1631-1638. doi: 10.1038/s41591-023-02438-w. Epub 2023 Jul 18. PMID: 37464036.

2. Meier BM, Bustreo F, Gostin LO. [Climate Change, Public Health and Human Rights.](#) Int J Environ Res Public Health. 2022 Oct 22;19(21):13744. doi: 10.3390/ijerph192113744. PMID: 36360623; PMCID: PMC9658854.

If you have responded to the Weekly Check-Ins, you know that Dr. Sun has a passion about asking how climate change impacts all aspects of global public health and the major disease's landscape. Every Chapter in this course can be used to address a meaningful component of climate change and health.

3. [WHO. WHO Director-General declares Mpox outbreak a public health emergency of international concern.](#)

4. [MD Andersen Cancer Center. 10 mpox \(monkeypox\) myths you shouldn't believe.](#)

5. [Science Insider. Health. Confused about the mpox outbreaks? Here's what's spreading, where, and why.](#)

• • • • • **Chapter 14. Major Global Non-Infectious Diseases. Major Disorders in Endocrinology and Metabolism.**

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce principles of endocrinology and focus on thyroid disorders, diabetes mellitus, and Metabolic Syndrome.

Publications and Resources.

Harrison's Principles of Internal Medicine. [Part 12. Section 1. Endocrinology.](#)

1. Harrison's Principles of Internal Medicine. [Chapter 376. Approach to the Patient with Endocrine Disorders.](#)

2. Harrison's Principles of Internal Medicine. [Chapter 383. Hypothyroidism.](#)
3. Harrison's Principles of Internal Medicine. [Chapter 384. Hyperthyroidism and Other Causes of Thyrotoxicosis.](#)

Harrison's Principles of Internal Medicine. [Part 12. Section 3: Obesity, Diabetes Mellitus, and Metabolic Syndrome.](#)

4. Harrison's Principles of Internal Medicine. [Chapter 401. Pathobiology of Obesity.](#)
5. Harrison's Principles of Internal Medicine. [Chapter 402. Evaluation and Management of Obesity.](#)
6. Harrison's Principles of Internal Medicine. [Chapter 403. Diabetes Mellitus: Diagnosis, Classification, and Pathophysiology.](#)
7. Harrison's Principles of Internal Medicine. [Chapter 404. Diabetes Mellitus: Management and Therapies.](#)
8. Harrison's Principles of Internal Medicine. [Chapter 405. Diabetes Mellitus: Complications.](#)
9. Harrison's Principles of Internal Medicine. [Chapter 406. Hypoglycemia.](#)
10. Harrison's Principles of Internal Medicine. [Chapter 407. Disorders of Lipoprotein Metabolism.](#)
11. Harrison's Principles of Internal Medicine. [Chapter 408. The Metabolic Syndrome.](#)

Publications and Resources.

12. Pittas AG, Dawson-Hughes B, Sheehan P, Ware JH, Knowler WC, Aroda VR, Brodsky I, Ceglia L, Chadha C, Chatterjee R, Desouza C, Dolor R, Foreyt J, Fuss P, Ghazi A, Hsia DS, Johnson KC, Kashyap SR, Kim S, LeBlanc ES, Lewis MR, Liao E, Neff LM, Nelson J, O'Neil P, Park J, Peters A, Phillips LS, Pratley R, Raskin P, Rasouli N, Robbins D, Rosen C, Vickery EM, Staten M; D2d Research Group. [Vitamin D Supplementation and Prevention of Type 2 Diabetes.](#) N Engl J Med. 2019 Aug 8;381(6):520-530. doi: 10.1056/NEJMoa1900906. Epub 2019 Jun 7. PMID: 31173679; PMCID: PMC6993875.
13. Pittas AG, Jorde R, Kawahara T, Dawson-Hughes B. [Vitamin D Supplementation for Prevention of Type 2 Diabetes Mellitus: To D or Not to D?](#) J Clin Endocrinol Metab. 2020 Dec 1;105(12):3721–33. doi: 10.1210/clinem/dgaa594. PMID: 32844212; PMCID: PMC7571449.
14. Pittas AG, Jorde R, Kawahara T, Dawson-Hughes B. [Response to Letter to the Editor from Dalan: "Vitamin D Supplementation for Prevention of Type 2 Diabetes Mellitus: To D or Not to D?"](#). J Clin Endocrinol Metab. 2021 Mar 25;106(4):e1928-e1929. doi: 10.1210/clinem/dgaa971. PMID: 33377909; PMCID: PMC7993574.
15. Alberti KG, Zimmet P, Shaw J. [Metabolic syndrome--a new world-wide definition. A Consensus Statement from the International Diabetes Federation.](#) Diabet Med. 2006 May;23(5):469-80. doi: 10.1111/j.1464-5491.2006.01858.x. PMID: 16681555.

• • • • • Chapter 15. Major Global Non-Infectious Diseases. Major Neurologic Disorders.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce nervous system and its major disorders that we are facing globally, especially in developed countries, such as neurodegenerative disorders, psychiatric and addiction disorders, such as alcoholism and drug dependency.

Publications and Resources.

1. Brody H. Alzheimer's disease. *Nature*. 2011 Jul 13;475(7355):S1-S22. doi: 10.1038/475S1a. PMID: 21760574. [link to article collection in Chapter 15 resources]
2. Harrison's Principles of Internal Medicine. [Chapter 424. Pathobiology of Neurologic Diseases](#).
3. Harrison's Principles of Internal Medicine. [Chapter 431. Alzheimer's Disease](#).
4. Harrison's Principles of Internal Medicine. [Chapter 432. Frontotemporal Dementia](#).
5. Harrison's Principles of Internal Medicine. [Chapter 433. Vascular Dementia](#).
6. Harrison's Principles of Internal Medicine. [Chapter 434. Dementia with Lewy Bodies](#).
7. Harrison's Principles of Internal Medicine. Part 13. [Neurologic Disorders](#). Section 5: [Psychiatric and Addiction Disorders](#).

• • • • • • Chapter 16. Major Global Non-Infectious Diseases. Hematopoietic Disorders.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce biology of blood and focuses on major hematopoietic disorders, such as anemia and leukemia.

Publications and Resources.

1. Harrison's Principles of Internal Medicine. [Part 4. Oncology and Hematology. Section 2. Hematopoietic Disorders](#).
2. Wiemels J. [Perspectives on the causes of childhood leukemia](#). *Chem Biol Interact*. 2012 Apr 5;196(3):59-67. doi: 10.1016/j.cbi.2012.01.007. Epub 2012 Feb 2. PMID: 22326931; PMCID: PMC3839796.
3. Metayer C, Dahl G, Wiemels J, Miller M. [Childhood Leukemia: A Preventable Disease](#). *Pediatrics*. 2016 Nov;138(Suppl 1):S45-S55. doi: 10.1542/peds.2015-4268H. PMID: 27940977; PMCID: PMC5080868.

• • • • • • Chapter 17. Major Global Non-Infectious Diseases. Immune-Mediated Disorders.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce immune system and focuses on major immune-mediated disorders, such as autoimmune diseases and rheumatoid arthritis.

Publications and Resources.

Harrison's Principles of Internal Medicine. [Part 11: Immune-Mediated, Inflammatory, and Rheumatologic Disorders](#).

1. Harrison's Principles of Internal Medicine. [Section 1. The Immune System in Health and Disease](#). Especially, Chapters 349, 350, 351.
2. Harrison's Principles of Internal Medicine. [Section 2. Disorders of Immune-Mediated Injury](#). Especially, Chapters 352, 253, 355, 356, 358, 359, 361, 363, 365, 367, 369.
3. Harrison's Principles of Internal Medicine. [Section 3. Disorders of the Joints and Adjacent Tissues](#). Especially, Chapters 370, 371, 372, 373.
4. Metayer C, Dahl G, Wiemels J, Miller M. [Childhood Leukemia: A Preventable Disease](#). Pediatrics. 2016 Nov;138(Suppl 1):S45-S55. doi: 10.1542/peds.2015-4268H. PMID: 27940977; PMCID: PMC5080868.
5. Karthikeyan G, Guilherme L. [Acute rheumatic fever](#). Lancet. 2018 Jul 14;392(10142):161-174. doi: 10.1016/S0140-6736(18)30999-1. Epub 2018 Jun 29. Erratum in: Lancet. 2018 Sep 8;392(10150):820. PMID: 30025809.

• • • • • • • Chapter 18. Major Global Non-Infectious Diseases. Cancer 01.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce cancer biology and genetics, cancer prevention and early detection, skin and prostate cancers.

Publications and Resources.

Harrison's Principles of Internal Medicine. [Part 4. Oncology and Hematology](#). [Section 1. Neoplastic Disorders](#).

1. Harrison's Principles of Internal Medicine. Especially, Chapters 69, 70, 71, 72, 73, 74.
2. Harrison's Principles of Internal Medicine. [Chapter 76. Cancer of the Skin](#).
3. Harrison's Principles of Internal Medicine. [Chapter 77. Head and Neck Cancer](#).
4. Harrison's Principles of Internal Medicine. [Chapter 87. Benign and Malignant Diseases of the Prostate](#).
5. Colman RJ, Anderson RM, Johnson SC, Kastman EK, Kosmatka KJ, Beasley TM, Allison DB, Cruzen C, Simmons HA, Kemnitz JW, Weindruch R. [Caloric restriction delays disease onset and mortality in rhesus monkeys](#). Science. 2009 Jul 10;325(5937):201-4. doi: 10.1126/science.1173635. PMID: 19590001; PMCID: PMC2812811.

MODULE 04: NOVEMBER 18, TUESDAY – DECEMBER 10, WEDNESDAY [LAST DAY OF CLASSES]

TIMED CONTENT AVAILABILITY AND PARTICIPATION ENDS AT DEADLINE

NOTE: NO UNIVERSITY CLASSES ON NOVEMBER 26–27, 2025 FOR THANKSGIVING BREAK

NOTE: NO UNIVERSITY CLASSES ON NOVEMBER 28, 2025 FOR INDIGENOUS PEOPLE'S DAY BREAK

NOTE: NO UNIVERSITY CLASSES ON DECEMBER 11, 2025 FOR READING DAY BREAK

Module Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content, Research Proposal in Brief submission, Weekly Check-Ins.

• • • • • **Chapter 19. Major Global Non-Infectious Diseases. Cancer 02.**

This session will focus on cancers of lung, breast, pancreas, and liver.

Publications and Resources.

1. Harrison's Principles of Internal Medicine. [Chapter 78. Neoplasms of the Lung.](#)
2. Harrison's Principles of Internal Medicine. [Chapter 79. Breast Cancer.](#)
3. Harrison's Principles of Internal Medicine. [Chapter 82. Tumors of the Liver and Biliary Tree.](#)
4. Harrison's Principles of Internal Medicine. [Chapter 83. Pancreatic Cancer.](#)
5. Harrison's Principles of Internal Medicine. [Chapter 87. Benign and Malignant Diseases of the Prostate.](#)
6. Harrison's Principles of Internal Medicine. Chapter 88. [Testicular Cancer.](#)
7. Harrison's Principles of Internal Medicine. Chapter 89. [Gynecologic Malignancies.](#)
8. Gu D, Kelly TN, Wu X, Chen J, Samet JM, Huang JF, Zhu M, Chen JC, Chen CS, Duan X, Klag MJ, He J. [Mortality attributable to smoking in China.](#) N Engl J Med. 2009 Jan 8;360(2):150-9. doi: 10.1056/NEJMs0802902. Erratum in: N Engl J Med. 2010 Dec 2;363(23):2272. PMID: 19129528.
9. Rostron BL, Lynn BCD, Chang CM, Ren C, Salazar E, Ambrose BK. [The contribution of smoking-attributable mortality to differences in mortality and life expectancy among US African-American and white adults, 2000-2019.](#) Demogr Res. 2022 May 12;46:905-918. doi: 10.4054/demres.2022.46.31. PMID: 35645610; PMCID: PMC9134211.
10. National Center for Chronic Disease Prevention and Health Promotion (US) Office on Smoking and Health. [The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General.](#) Atlanta (GA): Centers for Disease Control and Prevention (US); 2014. 12, Smoking-Attributable Morbidity, Mortality, and Economic Costs. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK294316/>. [This is resource material, you do not need to read the contents in their entirety, unless you want to do so.]

•• Chapter 20. Aging.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session will introduce the biology of aging and clinical problems associated with the aging process.

Publications and Resources.

Harrison's Principles of Internal Medicine. [Part 18. Aging.](#)

1. Harrison's Principles of Internal Medicine. [Chapter 476. Biology of Aging.](#)
 2. Harrison's Principles of Internal Medicine. [Chapter 477. Caring for the Geriatric Patient.](#)
- Partridge L, Deelen J, Slagboom PE. [Facing up to the global challenges of ageing.](#) Nature. 2018 Sep;561(7721):45-56. doi: 10.1038/s41586-018-0457-8. Epub 2018 Sep 5. PMID: 30185958.

•• • Chapter 21. Frontiers.

Assignments: CarmenCanvas Discussion Board participation, review of core courses content [slides, videos], review of secondary resources [slides, online linked-content], Self-Check Assessment for competency in course content.

This session emerging and advanced issues in human diseases are introduced and summarized, such as the roles of epigenetics, circadian biology, and climate change in health and disease.

Publications and Resources.

1. Harrison's Principles of Internal Medicine. [Part 20. Frontiers.](#)
2. Harrison's Principles of Internal Medicine. [Part 5. Infectious Disease.](#) [Section 1. Basic Considerations in Infectious Diseases.](#) Especially, Chapters 119, 120, 121,124.
3. Harrison's Principles of Internal Medicine. [Chapter 125. Climate Change and Infectious Disease.](#)
4. Rappaport SM. [Genetic Factors Are Not the Major Causes of Chronic Diseases.](#) PLoS One. 2016 Apr 22;11(4):e0154387. doi: 10.1371/journal.pone.0154387. PMID: 27105432; PMCID: PMC4841510.

Alignment of Competencies with Assessments

Competencies	Assessment 1 (academic integrity)	Assessment 2 (quizzes)	Assessment 3 (discussions)	Assessment 4 (research paper)
Foundational Public Health Knowledge Objectives 8. Explain biological and genetic factors that affect a population's health		x	x	x
Master of Public Health Degree Foundational Public Health Competencies 4. Interpret results of data analysis for public health research, policy or practice		x	x	x
Master of Public Health Specialization Competencies <i>Environmental Health Sciences</i> 1. Outline the health challenges that natural and anthropogenic contaminants in the environment can pose to population health		x	x	x
Master of Science Specialization Competencies <i>Environmental Public Health</i> 6. Explain individual and community susceptibility and vulnerability factors that heighten the risk for adverse health outcomes from environmental hazards		x	x	x

Doctor of Philosophy Degree Specialization Competencies <i>Environmental Public Health</i> 2. Synthesize and critique existing literature in student's area of specialization to identify gaps in the evidence base and justify their importance for public health	x			
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